Appendix B
AGENCY CORRESPONDENCE

H.A. Clark Memorial Field

Appendix B
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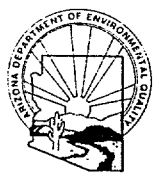

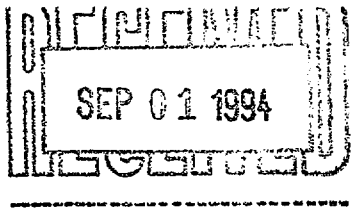

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

August 30, 1994

Leslie Stafford McGaughey
Coffman Associates
11022 N. 28th Drive, Suite 240
Phoenix, Arizona 85029

Re: Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams, Arizona

Dear Leslie Stafford McGaughey:

The Arizona Department of Environmental Quality, Waste Programs Division appreciates the opportunity to comment on the above referenced project. We offer the following comments:

1. All solid waste generated by the development must go to an ADEQ approved facility. If solid waste is stored on site for greater than 90 days, or will be treated or disposed on site, facility approval may be required. Contact Ms. Mercedes Vidan of the Solid Waste Plan Review Unit at 602-207-4117.

   In addition, there are specific requirements regarding the disposal and transportation of used oil. Contact Robert Verville of the Solid Waste Inspection & Compliance Unit at 602-207-4140.

2. All underground storage tanks must be registered with ADEQ. Contact Mr. Bruce Ijirigho of the UST Inspections & Compliance Unit at 602-207-4315.

3. Owners and operators of activities at the airport (such as in the aviation related development area) that generate waste must determine if their waste is hazardous. In addition, owners and operators must provide for the proper handling and accumulation of those wastes until proper transport to an approved off-site treatment, storage or disposal facility occurs. Questions concerning hazardous waste issues should be directed to the Department's Hazardous Waste Compliance Unit at 602-207-4108.

3033 North Central Avenue, Phoenix, Arizona 85012, (602)207-2300

Thank you for your cooperation. Should you have any questions, please contact me at 602-207-4179.

Sincerely,

Roger Kennett

Roger Kennett
Waste Programs Division

cc: Karl F. Meyer, ADEQ Water Quality Division
Pat Mariella, ADEQ Ombudsman & Outreach
Roseanne Norstrom, ADEQ Air Quality Division

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

September 1, 1994

Leslie Stafford McGaughey, Associate
Coffman Associates
Airport Consultants
11022 N. 28th Drive, Ste. 240
Phoenix, AZ 85029

RE: Environmental Assessment for Proposed Improvements and Expansion of H.A. Clark Memorial Field airport, Williams, Arizona.

Dear Ms. McGaughey:

This letter is written in response to your August 24, 1994 request for an air quality impact review of the **proposed improvements and expansion of H.A. Clark Memorial Field, Williams, Arizona.**

The proposed project is located in an air quality attainment area, that is, an area which currently meets federal health standards for air pollution levels, including particulates.

We have reviewed the submitted proposal and no significant adverse air quality impact is anticipated as a result of the project. However, during construction, we would request that steps are taken to minimize the amount of particulate matter (dust) generated, including incidental emissions caused by strong winds, as well as tracking of dirt off the construction sites by machinery and trucks. We recommend that the following preventive and mitigative measures are taken to minimize the possible particulate pollution problem:

I. Site Preparation

A. Minimize land disturbance;
B. Use watering trucks to minimize dust;
C. Cover trucks when hauling dirt;
D. Stabilize the surface of dirt piles if not removed immediately;
E. Use windbreaks to prevent any accidental dust pollution;
F. Limit vehicular paths and stabilize these temporary roads;
G. Grade to prevent soil from washing onto paved roadways; and
H. Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways.

3033 North Central Avenue, Phoenix, Arizona 85012, (602)207-2300

II. Construction

A. Cover trucks when transferring materials;
B. Use dust suppressants on traveled paths which are not paved;
C. Minimize unnecessary vehicular and machinery activities; and
D. Minimize dirt track-out by washing or cleaning trucks while stationed on a paved surface before leaving the construction site.

III. Post Construction

A. Revegetate any disturbed land not used;
B. Remove unused material;
C. Remove dirt piles; and
D. Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities.

Applicable state rules are contained in A.A.C. R18-2-604 through R18-2-610. Enclosed please find a copy of these rules.

In addition, please be aware that portable sources of air pollution such as rock, sand, gravel, and asphaltic concrete plants are required to be permitted by ADEQ prior to commencing operations (see ARS §49-426).

Thank you for the opportunity to comment. Should you have any further questions, please contact me at 207-2369.

Sincerely,

Ann Norstrom
Environmental Planner
Air Quality Planning Section

JG:RCN
Enclosure
cc: Pat Mariella, ADEQ

Renumbered to R18-2-722 effective November 15, 1993 (Supp. 93-4).

R18-2-523. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Amended effective July 9, 1980 (Supp. 80-4). Former Section R9-3-523 renumbered without change as Section R18-2-523 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-2). Renumbered to R18-2-723 effective November 15, 1993 (Supp. 93-4).

R18-2-524. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Amended effective July 9, 1980 (Supp. 80-4). Amended subsection (A) effective September 22, 1983 (Supp. 83-5). Former Section R9-3-524 renumbered without change as Section R18-2-524 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-724 effective November 15, 1993 (Supp. 93-4).

R18-2-525. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Editorial correction, subsection (B) (Supp. 79-6). Amended effective July 9, 1980 (Supp. 80-4). Former Section R9-3-525 renumbered without change as Section R18-2-525 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-725 effective November 15, 1993 (Supp. 93-4).

R18-2-526. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-526 renumbered without change as Section R18-2-526 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-726 effective November 15, 1993 (Supp. 93-4).

R18-2-527. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-527 renumbered without change as Section R18-2-527 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-727 effective November 15, 1993 (Supp. 93-4).

R18-2-528. Renumbered

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Amended effective July 9, 1980 (Supp. 80-4). Former Section R9-3-528 renumbered without change as Section R18-2-528 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-728 effective November 15, 1993 (Supp. 93-4).

R18-2-529. Renumbered

Historical Note
Adopted effective September 22, 1983 (Supp. 83-5). Former Section R9-3-529 renumbered without change as Section R18-2-529 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-729 effective November 15, 1993 (Supp. 93-4).

R18-2-530. Renumbered

Historical Note
Adopted effective September 26, 1990 (Supp. 90-3). Renumbered to R18-2-730 effective November 15, 1993 (Supp. 93-4).

ARTICLE 6. EMISSIONS FROM AND NEW NONPOINT SOURCES

R18-2-601. General

For purposes of this Article, any source of air contaminants which due to lack of an identifiable emission point or plume cannot be considered a point source, shall be classified as a nonpoint source. In applying this criteria, such items as air-curtain destructors, heater-planners, and conveyor transfer points shall be considered to have identifiable plumes. Any affected facility subject to regulation under Article 7 of this Chapter or A.A.C. Title 9, Chapter 3, Article 8, shall not be subject to regulation under this Article.

Historical Note
Former Section R9-3-601 repealed, new Section R9-3-601 adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-601 renumbered without change as Section R18-2-601 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-601 renumbered to R18-2-801, new Section R18-2-601 renumbered from R18-2-401 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-602. Unlawful Open Burning

A. Notwithstanding the provisions of any other rule in this Chapter, it is unlawful for any person to ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire.

B. "Open outdoor fire", as used in this rule, means any combustion of combustible material of any type outdoors, in the open where the products of combustion are not directed through a flue. "Flue", as used in this rule, means any duct or passage for air, gases or the like, such as a stack or chimney.

C. The following fires are excepted from the provisions of this rule:
   1. Fires used only for cooking of food or for providing warmth for human beings or for recreational purposes or the branding of animals or the use of orchard heaters for the purpose of frost protection in farming or nursery operations.
   2. Any fire set or permitted by any public officer in the performance of official duty, if such fire is set or permission given for the purpose of weed abatement, the prevention of a fire hazard, or instruction in the methods of fighting fires.
   3. Fires set by or permitted by the state entomologist or county agricultural agents of the county for the purpose of disease and pest prevention.
   4. Fires set by or permitted by the federal government or any of its departments, agencies or agents, the state or any of its agencies, departments or political subdivisions, for the purpose of watershed rehabilitation or control through vegetative manipulation.

D. Permission for the setting of any fire given by a public officer in the performance of official duty under paragraphs (2), (3), or (4) of subsection (C), shall be given, in writing, and a copy of such written permission shall be transmitted immediately to the Director of the Department of Environmental Quality and the control officer, if any, of the county, district or region in which such fire is allowed. The setting of any such fire shall be constructed in a manner and at such time as approved by the Director, unless doing so would defeat the purpose of the exemption.

E. The following fires may be excepted from the provisions of this Section when permitted in writing by the Director of the

Department of Environmental Quality or the control officer of the county, district or region in which such fire is allowed:

1. Fires set for the disposal of dangerous materials where there is no safe alternative method of disposal.
   a. "Dangerous material" is any substance or combination of substances which is able or likely to inflict bodily harm or property loss unless neutralized, consumed or otherwise disposed of in a controlled and safe manner.
   b. Fires set for the disposal of dangerous materials shall be permitted only when there is no safe alternative method of disposal, and when the burning of such materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts which will endanger health or safety.
2. Open outdoor fires for the disposal of ordinary household trash in an approved waste burner in nonurban areas of less than 100 well spread out dwelling units per square mile where no refuse collection and disposal service is available.
   a. An "approved waste burner" is an incinerator constructed of fire resistant material with a cover or screen which is closed when in use having openings in the sides or top no greater than one inch in diameter.
   b. Open burning of the following materials is forbidden: Garbage resulting from the processing, storage, service or consumption of food; asphalt shingles; tar paper; plastic and rubber products (such as waste crankcase oil, transmission oil and oil filters); transformer oils; and hazardous material containers including those that contained inorganic pesticides, lead, cadmium, mercury, or arsenic compounds.

F. The Director of the Department of Environmental Quality or the air pollution control officer, if any, of the county, district, or region may delegate the authority for the issuance of allowable open burning permits to responsible local officers. Such permits shall contain conditions limiting the manner and the time of the setting of such fires as specified in the Arizona Guidelines for Open Burning and shall contain a provision that all burning be extinguished at the discretion of the Director or his authorized representative during periods of inadequate atmospheric smoke dispersion, periods of excessive visibility impairment which could adversely affect public safety, or periods when smoke is blown into populated areas so as to create a public nuisance.
   1. Any local officer delegated the authority for issuance of open burning permits shall maintain a copy of all currently effective permits issued including a means of contacting the person authorized by the permit to set an open fire in the event that an order for extinguishing of open burning is issued.

G. Nothing in this rule is intended to permit any practice which is a violation of any statute, ordinance, rule or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4).

R18-2-603. Forestry Management

A. All national parks and national forests having areas which extend into more than one county of the state of Arizona, as well as all state parks and forests shall be under the jurisdiction of the Director in all matters relating to prescribed burning or slash disposal.

B. Each entity mentioned in subsection (A) shall comply with the following:
   1. Each national park, state park, national forest or state forest hereinafter called forest will apply directly to the Bureau for an annual burning permit for all planned burning projects. Application will be made in the spring of the year, prior to June 1 for the ensuing fiscal year.
   2. The application shall be in the form of a letter listing all projects. Enclosed with the letter will be copies of the Park Service or Forest Service approved burning plans for each planned project. A map of the burn and immediate surrounding area must accompany each plan.
   3. The application and the Park Service or Forest Service plans will list the following:
      a. Approximate date the project will start.
      b. Location of project by sections, townships, or ranges.
      c. Approximate elevation of project.
      d. Aspect of any slopes.
      e. Description of fuel to be burned.
      f. Prescribed conditions for fire (e.g. time of day, fuel moisture, weather).
   4. Each forest as part of the application will provide the Bureau with one emergency or 24-hour telephone number.
   5. Each forest will notify the Bureau when a project planned starting date is later changed. Notification will be by telephone. Any other changes, such as fuel type, duration of burn or location, should be included in this notification.
   6. The determination to allow burning will be made on a day-by-day basis. It is the responsibility of each park or forest to telephone the Bureau for such a determination. Large fires and those that continue during nighttime hours will require special forecasts made by the national weather service, the Department's meteorologist, or by the permittee if forecast procedures are approved by the Department. On site meteorological measurements by the permittee may be required as inputs to dispersion forecasts and smoke management during the burn.
   7. Once each year, on or before December 31, the Forest Service or Parks Service shall submit to the Bureau a report outlining the progress of research and development concerning the effects of forest burn programs on air quality. Such report shall include, where applicable, innovations in the management of prescribed burning using meteorological data, as well as special burning methods, or innovative equipment. Alternatives to burning shall also be considered. Research as to cost effectiveness of the various methods should also be included.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4).

R18-2-604. Open Areas, Dry Washes or Riverbeds

A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved

dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and three-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.

B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note
Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note
Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.

B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note
Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note
Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

No person shall cause, suffer, allow or permit the performance of agricultural practices including but not limited to tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note
Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4).

R18-2-610. Evaluation of Nonpoint Source Emissions

Opacity of an emission from any nonpoint source shall not be greater than 40 percent measured in accordance with the Arizona Testing Manual, Reference Method 9. Open fires permitted under R18-2-602 and R18-2-603 are exempt from this requirement.

Historical Note
Section R18-2-610 renumbered from R18-2-410 and amended effective November 15, 1993 (Supp. 93-4).

ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS

R18-2-701. Definitions

For purposes of this Article:

1. "Acid mist" means sulfuric acid mist as measured in the Arizona Testing Manual and 40 CFR 60, Appendix A.
2. "Architectural coating" means a coating used commercially or industrially for residential, commercial or industrial buildings and their appurtenances, structural steel, and other fabrications such as storage tanks, bridges, beams and girders.
3. "Asphalt concrete plant" means any facility used to manufacture asphalt concrete by heating and drying aggregate and mixing with asphalt cements. This is limited to facilities, including drum dryer plants that introduce asphalt into the dryer, which employ two or more of the following processes:
   a. A dryer.
   b. Systems for screening, handling, storing, and weighing hot aggregate.

FIFE SYMINGTON
GOVERNOR

Arizona
State Land Department
1616 WEST ADAMS
PHOENIX, ARIZONA 85007

M.J. HASSELL
STATE LAND COMMISSIONER

September 1, 1994

Ms. Leslie Stafford McGaughey
Coffman and Associates
11022 N. 28th Drive, Ste 240
Phoenix, AZ 85029

RE: H. A. Clark Memorial Field, Williams, AZ

Dear Ms. McGaughey:

Thank you for your letter dated August 24, 1994 regarding proposed changes to the H. A. Clark Memorial Field in Williams, Arizona. Our surface Trust maps indicate that the nearest Trust properties are located approximately 1 1/2 miles to the north. Given the size of the aircraft using the field, it is likely that these Trust lands will be impacted by some overflight patterns. However, this should not affect the continued use of the land for grazing. Therefore, the Department takes no position with respect to the proposed changes to Williams Airport facility.

Should you have any additional questions, please contact Gordon Taylor of our Urban Planning Division at (602) 542-3671.

Sincerely,

M. J. Hassell
State Land Commissioner

MJH/GST/lfm

c: Gordon Taylor, Project Manager
Urban Planning Division

WQMS-710.025

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

September 2, 1994

Ms. Leslie Stafford Mc Gaughey
Coffman Associates
11022 N 28th Drive, Suite 240
Phoenix, Arizona 85029

RE: H.A. Clark Memorial Field, Williams, Arizona

Dear Leslie:

We have received and reviewed the package of information from your office dated August 24, 1994. You requested us to identify any concerns we may have regarding water quality impacts in connection with airport expansion at H.A. Clark Memorial Field.

We reviewed the USGS Topographic map of the Williams area and noted the absence of watercourses within a mile of the airport. We believe there will be no water quality impacts created by the expansion of the referenced airport.

Thank you for allowing us to comment on this project early in the planning process. If you have any questions, or comments, please call me at 207-4502.

Sincerely,

James Matt, P.E.
Certification Engineer
Engineering Review & Permits Unit

JRM:dag

MATT:#9/williams.air

3033 North Central Avenue, Phoenix, Arizona 85012, (602)207-2300

THE STATE OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000

REGION II - 3500 S. LAKE MARY ROAD - FLAGSTAFF, ARIZONA 86001

September 8, 1994

Leslie Stafford McGaughey
Coffman Associates
Airport Consultants
11022 N. 28th Drive, Suite 240
Phoenix, Arizona 85029

Re: Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams, Arizona
AGFD log# 8-26-94(03)

Dear Ms. McGaughey:

The Arizona Game and Fish Department has reviewed the vicinity maps for the above listed project and would offer the following for your consideration.

Three Mile Lake is located at the end of the runway. It is a naturally occurring wetland. In the past wildlife species were attracted to it. We feel that increasing the storage capacity may cause this to happen again. Do you think that there's a possibility that run-off water may be diverted for wildlife's use? Please advise us if you think this is a workable idea.

As with the other airports in the vicinity, we would strongly suggest that a wildlife proof fence be constructed around the perimeter of the runway. This helps avoid collision with elk and deer.

Lastly, we would appreciate being advised of how fuel storage will be handled with increased capacity.

We do reserve the right to provide additional information as it becomes available to us. Thank you for the opportunity to comment on this project.

Sincerely,

Randy Smith

Randy Smith
Habitat Specialist, Flagstaff

cc: City Manager, Williams
Dan Gaska, Wildlife Manager, Unit 8 & 10.

Northern Arizona Council of Governments

119 EAST ASPEN AVENUE • FLAGSTAFF, ARIZONA 86001-5296 • (602)774-1894
RELAY: TDD: 1-800-367-8939; VOICE: 1-800-842-4681

KENNETH J. SWEET
EXECUTIVE DIRECTOR

Leslie Stafford McGaughey, Associate
Coffman Associates
11022 N. 28th Drive; Suite 240
Phoenix, AZ 85029

Dear Ms. McGaughey: Leslie

We have reviewed your letter of August 24, 1994 where you ask for any comments we may have regarding the preparation of a Master Plan for H.A. Clark Memorial Field in Williams. The following comments are offered:

* We did not see Threemile Lake on your vicinity map. What are your plans to protect this wetland?

* The City has proposed a wetlands area for disposing of effluent from their wastewater treatment plant. Where does this project stand and will it affect airport development?

* Is there a potential for migrating birds close to the airport given the proximity of water?

* The airport is close to Cataract Creek. There is a need to control all airport runoff so that it does not reach the Creek.

Thank you for the opportunity to comment on the development of the Master Plan. If you have any questions about these comments, please contact Christine Nelson.

Sincerely,

Joe Weidman
Planning Director

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

Nonpoint Source Unit, 5th Floor
1-800-234-5677 (Arizona Only)
FAX (602) 207-4467
(602) 207-4535

September 14, 1994

Ms. Leslie Stafford McGaughey
Associate
Coffman Associates
Airport Consultants
121022 N. 28th Drive, Suite 240
Phoenix, Arizona 85029

Re: **Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams, Arizona, Your Letter 8-24-94**

Dear Ms. McGaughey:

The Arizona Department of Environmental Quality, Division of Water Quality, Nonpoint Source Unit (NPS), appreciates the opportunity to comment on the Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams, Arizona. The Arizona Department of Environmental Quality offers the following comments:

1. Havasu Creek (HUC 15010004-003,001) was evaluated as partially attaining for bacteria in the 1988 NPS Assessment Report, (see enclosed Surface Water Assessment Colorado Main Stem River Basin).

2. Havasu Creek (HUC 15010004-001 - 004) and Cataract Creek (HUC 15010004-005 - 007) were monitored and evaluated as threatened and full support in the 1990 305(b) Report, (see enclosed Surface Water Assessment, Colorado Main Stem River Basin).

3. Havasu Creek (HUC 15010004-001 - 004) and Cataract Creek (HUC 15010004-005 - 007) were monitored and evaluated as full, threatened, and non support for suspended solids (SSS), settleable solids (STS), fecal coliform (FC), pH, nutrients, metals and Biological Oxygen Demand (BOD) in the 1992 305(b) Report (see enclosed Surface Water Assessment, Colorado River Basin).

A surface water hydraulic connection exists between the Colorado River and the Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams, Arizona via Havasu Creek, Cataract Creek, and unnamed washes by the tributary rule.

The Arizona Department of Environmental Quality recommends that:

1. Where applicable the Management Agency and or Owner/Operator shall over-site any construction to ensure that discharges from the watershed or to all Waters of the State/Waters of the U.S. shall meet all applicable Water Quality Standards;

3033 North Central Avenue, Phoenix, Arizona 85012, (602)207-2300

2. Best Management Practices should be implemented during and after all construction phases to protect watershed condition and riparian areas, to maintain adequate vegetative cover, and to minimize the discharge of sediment, petroleum, nutrients, bacteria and other pollutants to the Colorado River via Havasu Creek, Cataract Creek, and unnamed washes watershed by the tributary rule or to all Waters of the State/Waters of the U.S.;

3. Best Management Practices should be implemented for construction activities for mechanical equipment to minimize ground disturbance to protect watershed condition and riparian areas;

4. A monitoring program should be implemented to evaluate the effectiveness of Best Management Practices in protecting watershed condition and Waters of the State;

5. Where applicable the Management Agency and or Owner/Operator shall demonstrate a knowledge of waste streams, permits and hazardous materials handling as well as indicate the destination of each hazardous waste being disposed off-site;

6. Construction activities for mechanical equipment need to minimize the amount of particulate matter (dust) generated, including incidental emissions caused by strong winds, and tracking of dirt off the construction by mechanical equipment. Regarding rules that may apply contact Mr. Joe Gibbs at (602) 207-2378 with the Arizona Department of Environmental Quality, Air Quality Planning Section;

7. Be aware that portable sources of air pollution ie. rock, sand, gravel and asphaltic concrete plants are required to be permitted by ADEQ prior to commencing operations. Contractors and subcontractors working on this project may be required to comply with these regulations. Contact Mr. Prabhat Bhargava at (602) 207-2329 with the Arizona Department of Environmental Quality, Air Quality Permits Section;

8. All solid wastes generated by the activity shall be transported to an ADEQ approved facility. Waste stored on site for more than 90 days, or will be treated or disposed of on-site, may require facility approval. Contact Ms. Mercedes Vidan at (602) 207-4117 with the Arizona Department of Environmental Quality, Solid Waste Plan Review Unit, regarding assistance in applying for this permit;

9. Sanitary waste facilities provided during construction phases shall be planned and developed in such a manner to ensure protection of both surface and groundwater resources;

10. A Clean Water Act, Section 402, NPDES Permit is required for all ground disturbing activities which exceed 5 acres in impact. Contact Mr. Robert Wilson at (602) 207-4574 with the Arizona Department of Environmental Quality regarding assistance in applying for this federal permit;

11. A Clean Water Act, Section 404 Permit may be required for the discharge of dredged or fill material into the navigable waters. Contact Ms. Cindy Lester of the US Army Corp of Engineers at (602) 640-5385 regarding a 404 Permit application. In addition a Section 401 Certification may be required and can be obtained from ADEQ. Contact Mr. Jim Matt at (602)

207-4502 with the Arizona Department of Environmental Quality, Engineering Review and Permits, for assistance in obtaining certification; and

12. A.A.C. R18-11-109, Surface Water Quality Standards Rules must be complied with as set forth in Section G (enclosed).

Enclosed for your information and reference, please find a copy of A.A.C. R18-11-107/108/109, Surface Water Standards Rules. The Arizona Department of Environmental Quality would appreciate receiving information on the progress of this project. Thank you for your cooperation, should you have any questions, please contact me at (602) 207-4535.

Sincerely,

Karl F. Meyer

Karl F. Meyer
Nonpoint Source Unit

Enclosures

cc: Pat Mariella, ADEQ
Larry Stephenson, ADEQ
Mike Hill, ADEQ
Kris Randall, ADEQ
Peter Jagow, ADEQ
Dan Salzler, ADEQ

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TABLE III-2 (cont.). COLORADO MAIN STEM RIVER BASIN (SURFACE WATER ASSESSMENT)

HUC CODE (a)	SITE	PROTECTED USES AND SPECIAL WATER QUALITY DESIGNATIONS (b) D F H A C I L E U	USE ATTAINMENT MILEAGE MONITORED (c) FULL	PART	NON	T	EVALUATED (c) FULL	PART	NON	PARAMETER (c)(e)	SOURCE (d)(e)	REMARKS (e)
15010003-024	Kanab C.	H A L						3.0			UNKNOWN	BASED ON UPSTREAM SOURCES (ADEQ)
15010002-012	Colorado R.	D F C I L						15.4		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15014004-95	South Rim Colorado (USFS 5TH CODE Watershed No. 95)									SEDIMENT (12)	GRAZING (12)	UNSATISFACTORY WATERSHED IN KAIBAB NATIONAL FOREST DUE TO PAST MANAGEMENT PRACTICES (12)
15010004-003	Havasu Creek	H A I L						15.8		BACTERIA	LAND DISPOSAL	KNOWN CONTAMINATION ACCORDING TO ADEQ STAFF (ADEQ)
15010004-001	Havasu Creek	H A I L						2.7		BACTERIA	LAND DISPOSAL	KNOWN CONTAMINATION ACCORDING TO ADEQ STAFF (ADEQ)
15010002-011	Colorado R.	D F C I L						10.2		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-009	Colorado R.	D F C I L						5.8		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-007	Colorado R.	D F C I L						8.4		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-005	Colorado R.	D F C I L						9.6		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-004	Colorado R.	D F C I L						10.2		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-003	Colorado R.	D F C I L						29.5		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]
15010002-001	Colorado R.	D F C I L						15.5		TDS TEMPERATURE	HYDROLOGIC/ HABITAT MOD.	[NOTE 1]

(a) -- REFER TO APPENDIX C FOR MORE INFORMATION ON HUC CODES
(b) -- REFER TO APPENDIX D FOR SPECIAL WATER QUALITY DESIGNATIONS AND PROTECTED USES
(c) -- REFER TO APPENDIX B FOR PROCEDURES OF THE MONITORED AND EVALUATED ASSESSMENT AND THE DEFINITIONS OF THE [STA], [STB], AND [STC] LABELS.
Numerals following labels indicate numbers of samples. An x in the label indicates a long term record station.
(d) -- REFER TO CHAPTER II FOR DISCUSSION OF NONPOINT SOURCES OF POLLUTION
(e) -- NUMBERS IN PARENTHESES PERTAIN TO CHAPTER III BASIN REPORT REFERENCES

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APPENDIX A
WATERBODY SYSTEM SUMMARY

BASIN	REACH NUMBER OR LAKE NUMBER	REACH NAME OR LAKE NAME	WATERBODY SIZE	MILES ACRES	MON VS EVAL	USE SUPPORT	AQUATIC ECOSYSTEM SUPPORT	SWIMMABLE SUPPORT	NON POINT SOURCE	CLEAN LAKES	TOXICS	USE STATUS DWS	FBC	IHC	A&W	CAW	AgI	AgL	UNQ	EDW	COMMENTS
COLO	AZ15010003-024	Kanab Creek, Cottonwood Ck.-Sandy Canyon Wash	3.0	M	E	PART	PART		IMPACT					P	P			S			Same comment as AZ15010003-001.
COLO	AZ15010003-023	Kanab Creek, Sandy Canyon Wash-Johnson Wash	8.4	M	E	PART	PART		IMPACT					P	P			S			Same comment as AZ15010003-001.
COLO	AZ15010003-013	Kanab Creek, Johnson Wash-Jacob Canyon	3.5	M	E	PART	PART	NA	IMPACT					P	P			S			Same comment as AZ15010003-001.
COLO	AZ15010003-011	Kanab Creek, Jacob Canyon-Bulrush Canyon	4.3	M	E	PART	PART	NA	IMPACT					P	P			S			Same comment as AZ15010003-001.
COLO	AZ15010003-010	Kanab Creek, Bulrush Canyon-Snake Gulch	14.7	M	E	PART	PART	NA	IMPACT					P	P			S			Same comment as AZ15010003-001. NPDES noncompliance (Energy Fuels): Copper 1/24, cyanide 1/24.
COLO	AZ15010003-006	Kanab Creek, Snake Gulch-Hack Canyon	8.8	M	E	PART	PART	NA	IMPACT					P	P			S			Same comment as AZ15010003-001.
COLO	AZ15010003-005	Kanab Creek, Hack Canyon-Jump-up Canyon	6.3	M	E	PART	PART	NA	IMPACT					P	P			S			Same comment as AZ15010003-001. 304(L) long list.
COLO	AZ15010003-001	Kanab Creek, Jump-up Canyon-Colorado River	9.3	M	E	PART	PART	NA	IMPACT					P	P			S			1988 NPS Assessment indicated Partial support due to sediment from unsatisfactory past watershed management on National Forest land.
COLO	AZ15010004-004	Havasu Creek, Havasu Creek-Pasture Wash	58.6	M		NA						U		U		U	U				
COLO	AZ15010004-003	Havasu Creek, Pasture Wash-L. Coyote Canyon	15.8	M	E	FULL	FULL	PART				S		S		S	S				Same comments as AZ15010004-001.
COLO	AZ15010004-001	Havasu Creek, L. Coyote Canyon-Colorado River	2.7	M	M	FULL	FULL	PART				S		S		S	S				4 samples taken (1985-86), full support. 1988 NPS Assessment indicated Partial due to bacteria from improper land disposal.
COLO	AZ15010004-007	Cataract Creek, Cataract Creek-Red Lake Wash	26.2	M	E	FULL	FULL	FULL				S			S	S	S				Fish kill investigation due to pine pollen coating gills revealed water quality met standards at time of investigation.
COLO	AZ15010004-006	Cataract Creek, Red Lake W.-Spring Valley W	5.4	M		NA						U			U	U	U				
COLO	AZ15010004-005	Cataract Creek, Spring Valley Wash-Sand Creek	5.7	M	E	THREAT	FULL	FULL	THREAT			T			T	T	T				Complaint investigation E.Williams revealed gasoline contamination in wash which may move downstream into this reach during a runoff event. NPS contamination.
COLO	AZ15010005-025	Grapevine Wash, Grapevine Wash-A	25.8	M		NA						U		U	U						
COLO	AZ15010005-024	Grapevine Wash, A-Lake Mead	3.1	M		NA						U		U	U						
COLO	AZ15010010-008	Virgin River, Border-Black Rock Gulch	2.5	M	E	NON	NON	NON	IMPACT					N	N						WQLS. See comments for AZ15010010-003. 304(L) long list.
COLO	AZ15010010-006	Virgin R., Black Rock Gulch-Sullivans Canyon	7.4	M	E	NON	NON	NON	IMPACT					N	N						WQLS. See comments for AZ15010010-003. 304(L) long list.
COLO	AZ15010010-004	Virgin R., Sullivans Canyon-Beaver Dam Wash	9.2	M	E	NON	NON	NON	IMPACT					N	N						WQLS. See comments for AZ15010010-003. 304(L) long list.
COLO	AZ15010010-003	Virgin River, Beaver Dam Wash-Big Bend Wash	8.7	M	M	NON	NON	NON	IMPACT					N	N						WQLS. USGS (Littlefield): Nonsupport turb.(occas. FColi), TDS over 2000. Reconstr. Beaver Dam wash off segment + improper strm-bnk maint.by BLM threatening further degredation. 1988 NPS assess part

1986 - Repot

COLORADO RIVER BASIN (continued)

WATERBODY NAME AND LOCATION DESCRIPTION	WATERBODY NUMBER	MILES OR ACRES	MONITORED OR EVALUATED	USE SUPPORT STATUS	COMMENTS
North Canyon Wash, hdwts-Colorado River	AZ15010001-017	32.2 M	E	Full	Kaibab National Forest Monitoring site 1991: full support, 3 samples.
Garden Creek, hdwtrs-Colorado River	AZ15010002-013 off63	16.2 M	E	Non-support	NPDES permit at Grand Canyon South Rim - noncompliance with BOD, SSS, STS, and metals.
Kanab Creek, Utah border-Cottonwood	AZ15010003-025	10.0 M	E	Threat	See comments for AZ15010003-001.
Kanab Creek, Cottonwood Ck.-Sandy	AZ15010003-024	3.0 M	E	Threat	Same comment as AZ15010003-001.
Kanab Creek, Sandy Cyn Wash-Johnson	AZ15010003-023	0.4 M	E	Threat	Same comment as AZ15010003-001.
Kanab Creek, Johnson Wash-Jacob Cyn	AZ15010003-013	3.5 M	E	Threat	Threat: noncompliance with NPDES permit up Johnson Creek. Same comment as AZ15010003-001.
Kanab Creek, Jacob Cyn-Bulrush Cyn	AZ15010003-011	4.3 M	E	Threat	Same comment as AZ15010003-001.
Kanab Creek, Bulrush Cyn-Snake Gulch	AZ15010003-010	14.7 M	E	Threat	Same comment as AZ15010003-001.
Kanab Creek, Snake Gulch-Hack Cyn	AZ15010003-006	8.0 M	E	Threat	Same comment as AZ15010003-001.
Kanab Creek, Hack Cyn-Jump-up Cyn	AZ15010003-005	6.3 M	E	Threat	See comments for AZ15010003-001.
Kanab Creek, Jump-up Cyn-Colorado R.	AZ15010003-001	9.3 M	M	Threat	1989 Priority Pollutant samples indicated no exceedences; however, these samples did not look at turbidity, sedimentation, TDS, or nitrates which were evaluated as problems in previous assessments.
Rock Canyon, hdwt-Johnson Wash	AZ15010003-018	27.7 M	E	Non-support	NPDES permit at Kaibab National Forest Jacob Lake: Noncompliance: nutrients, metals, SSS, and BOD.
Cataract Creek, hdwtrs-Red Lake Wash	AZ15010004-007	26.2 M	E	Non-support	NPDES permit for Williams POTW on a wash off Cataract Creek: noncompliance for BOD, suspended solids (SSS), settleable solids STS), fecal coliform (FC), pH, nutrients, and metals. Cataract Lake 1 sample (1988): no exceedence.

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WATERBODY NAME AND LOCATION DESCRIPTION	WATERBODY NUMBER	MILES OR ACRES	MONITORED OR EVALUATED	USE SUPPORT STATUS	COMMENTS
Cataract Creek, Spring Valley W.-Sand Cr.	AZ15010004-005	5.7 M	E	Threat	Complaint investigation in east Williams revealed gasoline contamination in wash which may move downstream into this reach during a runoff event. NPS contamination.
Havasu Creek, Pasture Wash-L.Coyote	AZ15010004-003	15.8 M	E	Full	Same comments as AZ15010004-001.
Havasu Creek, L. Coyote Cyn-Colorado	AZ15010004-001	2.7 M	M	Full	Priority pollutant monitoring 1989 - no exceedences. ADEQ 4 samples taken (1985-86): full support.
Virgin River, Utah bdr-Black Rock G	AZ15010010-008	2.5 M	E	Non-support	See comments for AZ15010010-003.
Virgin River, Black Rock G.-Sullivans	AZ15010010-006	7.4 M	E	Non-support	BLM one sample: chromium exceeded standard. See comments for AZ15010010-003.
Virgin River, Sullivans Cyn-Beaver Dam	AZ15010010-004	9.2 M	E	Non-support	BLM monitoring (2 samples) 1990 indicated mercury violations. See comments for AZ15010010-003.
Virgin River, Beaver Dam-Big Bend W.	AZ15010010-003	8.7 M	M	Non-support	USGS (Littlefield): 6 samples (1990). Nonsupport: mercury. Partial: turbidity. TDS 1260-2460 mg/l, sulfate 540-1100. Reconstruction of Beaver Dam wash off segment + improper streambank maintenance by BLM was threatening further degredation.
Virgin River, Big Bend-Nevada border	AZ15010010-002	2.7 M	E	Non-support	See comment AZ15010010-003.
Holy Moses Wash, headwaters-Sawmill Wash	AZ15030103-008 off5off	5.2 M	E	Non-support	NPDES permit for Kingman POTW: noncompliance metals, nutrients, BOD, and SSS.
Gila River, Coyote-Fortuna	AZ15070201-003	29.4 M	M	Non-support	USGS (Dome), 24 samples (1990-91): nonsupport due to TDS (mean 2066 in 1991), partial: Boron, Sulfate, and DO. FWS, 1989 reported elevated (not exceedances) of organochlorines and As, Cd, Pb, & Se.
Gila River, Fortuna-Colorado River	AZ15070201-001	6.6 M	E	Non-support	See comments for AZ15070201-003.
Yuma Main Canal, siphon-E.&W.Main Brnch	AZ15030108-003	1.0 M	E	Partial	NPDES permit for Somerton POTW: partial support due to fecal coliform, pH, SSS, and STS. Priority pollutants sampled.

1988 - Key

PART III SURFACE WATER ASSESSMENT

CHAPTER ONE - SUMMARY OF DATA

A. Assessment Introduction

Several major modifications in methodology and statistics are being instituted with this assessment. Comparisons with previous assessments and discussions of trends is curtailed by these changes. The most critical changes include:

1. Total stream miles in Arizona were based on information in Arizona's hydrographic database at 1:100,000, as EPA directed in their guidance document. Previous statistics were generated manually, based on maps at 1:250,000. Current statistics approximate 150,000 stream miles in Arizona (108,000 miles not on Tribal Lands), compared to 17,537 stream miles used for past assessments.

2. Waterbodies located on Native American tribal lands were not assessed. Previously, these streams and lakes were assessed as part of Arizona, when water quality information was available.

3. The surface water basin previously known as the Colorado River Basin, has been sub-divided into three basins: Colorado River Basin, Bill Williams River Basin, and Rios de Mexico. The Colorado River Basin is further subdivided into a northern and southern basin on several maps to improve the level of detail on these maps.

4. EPA has re-defined "monitored" assessments (EPA, 1991, p. A-1). Quarterly or more frequent sampling at fixed station chemical/physical monitoring sites is normally the basis of monitored assessments. Because of arid conditions in Arizona, the monitored assessment designation was modified to require at least 4 quarters within 2 years, depending on availability of flow. Previously, monitored assessments were defined as a minimum of 3 samples in 1 year.

5. EPA also re-defined use support for Aquatic and Wildlife use. Non-support now occurs if one toxicant (priority pollutants, chlorine, or ammonia) exceeds surface water (acute) standards within a 3-year period. A once-in-three-years violation would be considered full support if there are at least monthly samples during a 3-year period. Previously the following frequency of exceedance determined use support:

Full Support:	Criteria exceeded in $<=10\%$ of measurements,
Partial Support:	Criteria exceeded in 11%-25% of measurements, or
Non-support:	Criteria exceeded in $>25\%$ of measurements.

6. EPA established new guidance concerning use support for Domestic Water Source use. To be in full support, the mean or median of any drinking water toxicant must be below the criterion established by State standards. If the mean or median exceeds the standard, then the waterbody is in non-support. Previously, use support was determined using the same frequency of exceedance indicated above.

   Further, partial support is defined as "problems not requiring closures or advisories but adversely affecting treatment costs and the quality of polished water, such as taste and odor problems, color, excessive turbidity, high dissolved solids, pollutants requiring activated charcoal filters".

7. Compliance with NPDES permit limits is being used for the first time to determine use support. Permit discharge levels are established to meet surface water quality standards.

measurable at a 1:100,000 scale. When this reach information becomes available it will be added to the Waterbody System.

2. Assessment Strategy

An attempt was made to assess each waterbody listed in the Waterbody System to determine first the level of support for its designated uses, and in a second assessment, attainment of the Clean Water Act goals of aquatic ecosystem (fishable) and swimmable.

Designated use support for each waterbody was assessed by comparing Surface Water Standards to recent monitoring data (monitored assessment), or, where sufficient monitoring data was not available, through professional field evaluations from various agencies (evaluated assessment). Monitored assessments used data from October 1984 through September 1989. Data collected in the last two water years (October 1, 1987 - September 30, 1989) superseded all other data, where conflicts existed. The monitoring data was compared to criteria in:

1. Established numerical and narrative standards in Arizona's Surface Water Quality Rule (A.A.C. R18-11-101 through R18-11-304); or

2. Numeric values from EPA's most current Ambient Water Quality Criteria Documents, where Arizona has not established a specific contaminant standard.

The type of assessment used and level of support indicated by the assessment was based on EPA's classification guidelines for multiple use waterbodies (EPA, 1989a). Decision criteria for this assessment were further clarified through discussions with the State staff and EPA's Regional Monitoring Coordinator. Assessment criteria are specified in **TABLE 3**. Because monitored and evaluated assessments are distinctly different, these assessments are summarized separately in the basin discussions in the next section.

Separating the assessments by stream flow category (i.e., perennial and ephemeral) would also seem beneficial; however, the base information was not available for this assessment. For the 1984 305(b) Water Quality Report, stream miles were manually measured and categorized as either perennial (year-round flow) or ephemeral (having less than year-round flow, including seasonal flow), using the coding on 1:250,000 topography maps. Data was captured for basin wide statistics and not by reach, which is included in the Atlas (page 6) and the basin discussions in the next section. There were insufficient resources available for this assessment to repeat this procedure for every stream reach listed.

TABLE 3 - ASSESSMENT CLASSIFICATION SYSTEM (Continued)

Evaluated Assessment:

When site-specific data was insufficient for a Monitored Assessment (above), an evaluated assessment was made if other water quality information was available. Assessments may be based on land use, location of sources, citizen complaints, biological evaluation, site investigation reports, land use management studies, evaluations by other qualified agencies, samples collected in upstream segments, special samples collected, or previous assessments. Predicted criteria exceedences or use support was based on professional evaluation of data and information by ADEQ Staff and other qualified surveyors.

Reach assessments from the 1988 Arizona Water Quality Report (ADEQ, 1988a) and the 1988 Arizona Nonpoint Source Assessment Report (ADEQ, 1988b) were used as a basis for evaluated assessments, where other information sources were not available.

Full Support: All information indicated full support of all designated uses.

1. Numeric and narrative criteria were not exceeded.
2. Any sources of contaminants were adequately managed, so that criteria attainment was predicted.

Threatened Support: Uses are fully supported based on an evaluation; however these waters may not fully support uses in the future (unless pollution control action is taken) because of anticipated sources or adverse pollution trends.

Partial Support: Information indicates that one or more designated uses were partially supported and remaining uses were fully supported.

1. Upstream samples indicated partial or nonsupport (considering sources identified, proximity of samples, and/or downstream samples).
2. Prior assessments indicated partial support, and newer data or information not available.
3. Resource management reports or evaluations, from other agencies or investigative field staff, indicate a partial impairment of at least one designated use.

Not Supporting: Information indicates that one or more designated use is not supported.

1. Resource management reports or evaluations, from other agencies or investigative field staff, indicate at least one designated use is not supported.
2. Criteria exceeded at time of investigation (but inadequate samples for monitored assessment), for one or more designated use.
3. Upstream samples indicate that this segment would not support one or more designated use (considering sources identified, proximity and location of samples).

TABLE 4
ASSESSMENT CLASSIFICATION SYSTEM
FOR AQUATIC ECOSYSTEM/SWIMMABLE GOAL ATTAINMENT

Aquatic Ecosystem Supported:

1. Waterbody has an "Aquatic and Wildlife" or "Cold-water Aquatic and Wildlife" designated use, and such uses are fully supported (see use support assessment), and
2. Waters which are of such chemical and bacteriological quality as to support fish, shellfish, and wildlife populations that are well balanced and at their optimum health and reproductive viability, or
3. Waters that naturally could support only a limited variety of fish, shellfish, or other aquatic species, if those species are healthy and viable.

Aquatic Ecosystem Partially Supported:

1. Waterbody has an "Aquatic and Wildlife" or "Cold-water Aquatic and Wildlife" designated use, and these uses are fully or partially supported (see use support assessment), and
2. Waters in which fish, shellfish, or aquatic community suffers some adverse effect (e.g., lowered species diversity) due to pollution or habitat degradation, yet is still generally viable. (The intensity of management practices used by resource management agencies to support nongame indigenous species, as well as sport fisheries, were considered.)

Aquatic Ecosystem Not Supported:

1. Waterbody has an "Aquatic and Wildlife" or "Cold-water Aquatic and Wildlife" designated use; and Such uses are not supported; and/or
2. Waters which have fishing advisories or bans due to toxics in fish, shellfish, or other aquatic tissue, or pathogens in water at a level of concern; or
3. Waters in which the fish, shellfish, or other aquatic community is severely altered due to habitat degradation or pollution, such that the health or reproductive viability of the fish, shellfish, or other aquatic life has been adversely affected. (Waterbody habitat destruction or alteration identified as a significant contribution to the listing of endangered species.); or

APPENDIX A
WATERBODY SYSTEM SUMMARY

COLUMN NUMBER	EXPLANATION
1	The appendix is first organized by surface water basins: COLO = Colorado River, LCOLO = Little Colorado River, MGILA = Middle Gila River, SALT = Salt River, SPDRO = San Pedro River, SCRUZ = Santa Cruz River, UGILA = Upper Gila River, VERDE = Verde River, WTWTR = Whitewater Draw, WILLC = Willcox Playa.
2	This is a unique ID number. Stream = AZ+reach; Lake = AZL+basin number+AGFD number.
3	Within each basin the lakes are listed first followed by stream reaches. Lakes are listed in alphabetical order. The main stem stream in each basin is listed by reach in hydrological order as it flows downstream, followed in turn by its tributaries.
4&5	Lakes are measured in acres (A) and reaches are measured in miles (M).
6	Assessment were either monitored (M) or evaluated (E). See page 18 of text.
7	Indicates the overall use support assessment: full support (FULL), partial support (PART), threatened (THREAT), non-support (NON), and not assessed (NA). See pages 19-20 of text.
8	Aquatic Ecosystem is an assessment of a Clean Water Act goal. See pages 22-23 of text.
9	Swimmable is an assessment of a Clean Water Act goal. See page 23 of text.
10	Indicates whether the waterbody is impacted or threatened by nonpoint source pollution. See the Nonpoint Source Program discussion starting on page 114.
11	Indicates whether there were water quality impacts or threats to a lake in the Clean Lake Program (pages 62-73 of text).
12	Indicates whether the waterbody is impacted or threatened by priority pollutants or ammonia (toxics). See pages 46-47 of text.
13	Indicates the use support status of designated uses and classifications with specific water quality standards. Designated uses include: drinking water supply (DWS), full body contact (FBC), incidental human contact (IHC), aquatic and wildlife (A&W), cold-water aquatic and wildlife (CAW), agriculture irrigation (AgI), agriculture livestock watering (AgL). Classifications include: unique waters (UNQ) and effluent dominated waters (EDW). Status: supported (S), partial support (P), non-support (N), or threatened (T). See pages 14-16 of text.
14	Indicates the sources of information or basis for this assessment.

EXAMPLE

1 BASIN	2 REACH NUMBER OR LAKE NUMBER	3 REACH NAME OR LAKE NAME	4 WATERBODY SIZE	5 MILES ACRES	6 MON VS EVAL	7 USE SUPPORT	8 AQUATIC ECOSYSTEM SUPPORT	9 SWIMMABLE SUPPORT	10 NON POINT SOURCE	11 CLEAN LAKES	12 TOXICS	13 USE STATUS								14 COMMENTS
												DWS	FBC	IHC	A&W	CAW	AgI	AgL	UNQ	EDW	
COLO	AZ15070201-001	Gila River, Fortuna-Colorado River	6.6 M		E	NON	NON	NA	IMPACT		IMPACT	S	X		S	S				VOLS. See comments for AZ15070201-003.

Appendix B

Surface Water Methodology

For monitored assessments, violations were determined to have occurred if at least one exceedence was present in a minimum of three samples taken during WY 83-87. For larger sample sizes, a violation was established if about 10 percent of the samples exceeded standards. In the tables of Chapter III, violations are detailed and reported by WY 83-85 [STB] and WY 86-87 [STC] in the parameters column. Numerals following these labels indicated the total number of samples at the sample site, and the parameters violated are listed under the labels. A [GS] label and numeral in the parameters column indicate USGS data and the WY reported. Additionally, waters were assessed as threatened if the evaluation showed potential nonpoint sources in an area, and that during special circumstances; such as precipitation events, the water quality standards may be violated although monitoring shows no problem.

In the evaluated assessment, Storet data from WYs 65-82 was inspected and reported in the Chapter III In the Chapter III Tables, STORET data for WY 65-82 is reported under an [STA] label. Water quality violations from evaluated data were determined similiar to the procedure for the monitored assessment. Inspection results of STORET data for WY 65-87, reports, literature, and file records are presented in Chapter III. In the Chapter III Basin Tables, nonpoint sources of pollution have been addressed by stream segment to include information on: level (full, part, or non-attainment, and threatened) the standards attainment assessment level (monitoring or evaluated), pollution source categories, water quality parameters of concern and references for the information presented.

Four water quality parameters shown in the Chapter III Tables are described at an evaluated rather than monitored level. These are turbidity / sediment, nitrate, phosphate and total dissolved solids (TDS).

State of Arizona Water Quality Standards tie turbidity in streams to two numeric levels, "that no person shall cause to exceed, " these are: 10 NTUs for Aquatic and Wildlife (coldwater fishery), and 50 NTUs for the protected uses of Aquatic and Wildlife, Full Body Contact, and Incidental Human Contact. STORET data indicating turbidities over 10 NTU's for all Water Years 1965 to 1987, were noted although no specific manmade problems might be indicated.

For TDS or salinity, there isn't a specific statewide water quality standard, but there are salinity standard requirements for the Colorado River. Ranges and high values of TDS were inspected in other basins. Total dissolved solids consistently over 500 mg/l were noted as well as the high range values from a site. The EPA reports the following levels of dissolved solids hazard for irrigation waters:

(a) water which no detrimental effects will usually be noticed-------500 mg/l

(b) water which can have detrimental effects on sensitive crops----------500-1,000 mg/l

(c) water that may have adverse effects on many crops and requires careful management practices--1,000-2,000 mg/l

(d) water that can be used for tolerant plants on permeable soils with careful management practices----------2,000-5,000 mg/l

Judgements concerning TDS or salinity hazards were made in relation to these criteria.

Nitrogen and phosphorus pollution potential were judged from a conservative viewpoint. Concerns were noted for concentrations of total N exceeding 1.0 mg/l and total P exceeding 0.1 mg/l, respectively.

Appendix C

Hydrologic Unit Code and Reach File System

The surface water basins have been delineated utilizing the U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) system (Figure III-1). This system defines progressively smaller drainage basins, ranging from hydrologic regions to cataloging units. The HUC number system is summarized below:

USGS Hydrologic Unit Codes

Region	RR
Subregion	RRSS
Accounting Unit	RRSSAA
Cataloging Unit	RRSSAACC

The U. S. EPA Reach File utilizes the USGS cataloging unit designation to identify drainage systems and subdivides these drainage systems into "reaches". Reaches are linear sections of streams, lakes, reservoirs, wetlands, etc. that are linked to represent the branching patterns of surface water drainage systems. Each reach is characterized by similar hydrologic attributes. They are differentiated from one another by significant changes in hydrologic characteristics, for example, stream confluences, changes in sream gradient, or where streams enter or leave bodies of open water such as lakes or reservoirs. The reaches within the Reach File have been linked in hydrologic sequence in up-stream order. Individual reaches are identified by the eight digit HUC codes followed by an arbitrarily assigned three digit segment number as follows:

U.S. EPA Reach File Code

Reach	RRSSAACC-NNN

The Reach File numbers referenced in the tables of Chapter III correspond to the reaches shown on the basin maps of Chapter III. Crossbars on a stream delineate the beginning of each reach and mileage is measured downstream from this point.

Appendix D

Water Quality Standards Allowable Limits for Protected Uses

PARAMETER	PROTECTED USES					
	D	F	H	A	I	L
FECAL COLIFORM MAXIMUM ALLOWABLE LIMITS (Colony-Forming Units, CFU/100ml)						
1. GEOMETRIC MEAN (5 Sample Minimum)	1000	200	1000	1000	1000	1000
2. 10% OF SAMPLES For 30 Day Period	2000	400	2000	2000	2000	2000
3. SINGLE SAMPLE	4000	800	4000	4000	4000	4000
pH,ALLOWABLE LIMITS (Standard Units)						
1. MAXIMUM	*NS*	9.0	9.0	9.0	9.0	9.0
2. MINIMUM	*NS*	6.5	6.5	6.5	4.5	6.4
3. MAXIMUM Change Due To The Activities Of Man	*NS*	0.5	0.5	0.5	*NS*	*NS*
TRACE SUBSTANCES (MAXIMUM ALLOWABLE LIMITS). (mg/l)						
ARSENIC (AS As)	0.050*D*	0.050*D*	*a*	0.050*D*	2.000*T*	0.200*T*
BARIUM (AS Ba)	1.000*D*	1.000*D*	*a*	*NS*	*NS*	*NS*
BORON (AS B)	*NS*	*NS*	*a*	*NS*	1.000*T*	*NS*
CADMIUM (AS Cd)	0.010*T*	0.010*T*	*a*	0.010*D*[b]	0.050*T*	0.050
CHROMIUM (AS Cr) HEXAVALENT PLUS TRIVALENT)	0.050*D*	0.050*D*	*a*	0.050*D*	1.000*T*	1.000*T*

1. Abbreviations for Protected Uses in this appendix:

F = Full Body Contact	I = Agricultural Irrigation
H = Incidental Human Contact	L = Agricultural Livestock Watering
A = Aquatic and Wildlife.	D = Domestic Water Source
C = Aquatic and Wildlife cold water fishery.	W = Wastewater Treatment Plant

2. A unique water: Limits developed on a site-specific basis for each stream segment or lake. See R18-1-101 for current sites.

3. An effluent dominated water: Uses supported by limits developed on a site specific basis for each stream segment. See Section R18-1-101 for current sites.

Other abbreviations used in this appendix:

a - Too little is known about adverse health effects for this use to adequately select a number.

b - For cold water fishery protected use the maximum allowable cadmium concentration is 0.001 mg/l.

c - The allowable limit for this use is set at less than the current minimum level of detection. The limit necessary to adequately protect this use is lower. Until appropriate analytical procedures with lower detection limits are available, this particular limit is considered to be violated only when the number herein listed is reached or exceeded. Compliance requires concentrations be less than but not equal to the number listed.

NS - No Standard

T - Total Residues

D - Dissolved.

G. In designating uses of a navigable water and in establishing water quality criteria to protect those designated uses, the Director shall take into consideration the applicable water quality standards for downstream navigable waters and shall ensure that the water quality standards provide for the attainment and maintenance of the water quality standards of downstream navigable waters.

H. A use attainability analysis shall be conducted prior to removal of a designated use or adoption of a subcategory of a designated use that requires less stringent water quality criteria.

I. The Director may remove a designated use or adopt a subcategory of a designated use that requires less stringent water quality criteria provided the designated use is not an existing use and it is demonstrated through a use attainability analysis that attaining the designated use is not feasible for any of the following reasons:
1. Naturally occurring pollutant concentrations prevent the attainment of the use;
2. Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of a sufficient volume of treated wastewater without violating water conservation or other applicable requirements. Nothing herein shall be construed to require releases of treated wastewater;
3. Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;
4. Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the navigable water to its original condition or to operate such modification in a way that would result in attainment of the use. Nothing herein shall be construed to require the releases of water from dams;
5. Physical conditions related to the natural features of the navigable water, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life designated uses; or
6. Controls more stringent than those required by §§ 301(b) and 306 of the Clean Water Act are necessary to attain the use and implementation of such controls would result in substantial and widespread economic and social impact.

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-105. Reserved

R18-11-106. Reserved

R18-11-107. Antidegradation

A. The determination of whether there is any degradation of water quality in a navigable water shall be on a pollutant-by-pollutant basis.

B. The level of water quality necessary to protect existing uses shall be maintained and protected. No degradation of existing water quality is permitted in a navigable water where the existing water quality does not meet applicable water quality standards.

C. Where existing water quality in a navigable water is better than applicable water quality standards, the existing water quality shall be maintained and protected. The Director may allow limited degradation of existing water quality in such navigable waters, except unique waters, provided that the Department has held a public hearing on whether degradation should be allowed pursuant to the general public hearing procedures prescribed at R18-1-401 and R18-1-402 and the Director makes all of the following findings:
1. The level of water quality necessary to protect existing uses is fully protected.
2. The highest statutory and regulatory requirements for all new and existing point sources as set forth in the Clean Water Act are achieved.
3. All cost-effective and reasonable best management practices for nonpoint source control are implemented.
4. Allowing lower water quality is necessary to accommodate important economic or social development in the area in which the navigable water is located.

D. Existing water quality shall be maintained and protected in a navigable water that is classified as a unique water or that the Director has proposed for classification as a unique water pursuant to A.A.C. R18-11-112. The Director shall not allow limited degradation of a unique water pursuant to subsection (C) of this Section.

E. Nothing in this Section or in the implementation of this Section shall be inconsistent with § 316 of the Clean Water Act where a potential water quality impairment associated with a thermal discharge is involved.

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-108. Narrative water quality standards

A. Navigable waters shall be free from pollutants in amounts or combinations that:
1. Settle to form bottom deposits that inhibit or prohibit the habitation, growth or propagation of aquatic life or that impair recreational uses;
2. Cause objectionable odor in the area in which the navigable water is located;
3. Cause off-taste or odor in drinking water;
4. Cause off-flavor in aquatic organisms or waterfowl;
5. Are toxic to humans, animals, plants or other organisms;
6. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth or propagation of other aquatic life or that impair recreational uses;
7. Cause or contribute to a violation of an aquifer water quality standard prescribed in A.A.C. R18-11-405 or R18-11-406; or
8. Change the color of the navigable water from natural background levels of color.

B. Navigable waters shall be free from oil, grease and other pollutants that float as debris, foam, or scum; or that cause a film or iridescent appearance on the surface of the water; or that cause a deposit on a shoreline, bank or aquatic vegetation. The discharge of lubricating oil or gasoline associated with the normal operation of a recreational watercraft shall not be considered a violation of this narrative standard.

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-109. Numeric water quality standards

A. The water quality standards prescribed in this Section and in Appendix A apply to navigable waters listed in Appendix B and their tributaries. Additional numeric water quality standards for unique waters are prescribed in R18-11-112.

B. The following water quality standards for fecal coliform, expressed in colony forming units per 100 milliliters of water (cfu/100 ml), shall not be exceeded:

1. Fecal Coliform	FBC	DWS, PBC, A&W[1], AgI, AgL	
30-day geometric mean (5 sample minimum)	200	1000	
10% of samples for a 30-day period	400	2000	
Single sample maximum	800	4000	
2. Fecal coliform in effluent dominated waters		All designated uses	
30-day geometric mean (5 sample minimum)		200	
10% of samples for a 30-day period		400	
Single sample maximum		800	

C. The following water quality standards for pH, expressed in standard units, shall not be violated:

pH	DWS	FBC, PBC, A&W[2]	AgI	AgL
Maximum	9.0	9.0	9.0	9.0
Minimum	5.0	6.5	4.5	6.5
Maximum change due to discharge	NNS	0.5	NNS	NNS

D. The following maximum allowable increase in ambient water temperature, expressed in degrees Celsius, shall not be exceeded:

Temperature[3]	A&Ww, A&Wedw	A&Wc
Maximum increase due to a discharge[4,5]	3.0	1.0

E. The following water quality standards for turbidity, expressed as a maximum concentration in nephelometric turbidity units (NTU), shall not be exceeded:

Turbidity	FBC, PBC, A&Ww, A&Wedw	A&Wc
Rivers, streams and other flowing waters	50	10
Lakes, reservoirs, tanks and ponds	25	10

F. The following are the water quality standards for dissolved oxygen, expressed in milligrams per liter (mg/L). The dissolved oxygen concentration in a navigable water shall not fall below the following minimum concentrations:

Dissolved oxygen[6]	A&Ww	A&Wc	A&Wedw
Single sample minimum[7,8]	6.0	7.0	1.0

G. The following water quality standards for total phosphorus and total nitrogen, expressed in milligrams per liter (mg/L), shall not be exceeded:

	Annual mean	90th percentile	Single Sample Maximum
Verde River and its tributaries from headwaters to Bartlett Lake			
Total phosphorus	0.10	0.30	1.00
Total nitrogen	1.00	1.50	3.00
White River, Black River, Tonto Creek and their tributaries			
Total phosphorus	0.10	0.20	0.80
Total nitrogen	0.50	1.00	2.00
Salt River and its tributaries, except Pinal Creek, from the confluence of the White and Black Rivers to Theodore Roosevelt Lake			
Total phosphorus	0.12	0.30	1.00
Total nitrogen	0.60	1.20	2.00
Theodore Roosevelt, Apache, Canyon and Saguaro Lakes			
Total phosphorus	0.03[a]	NNS	0.60[b]
Total nitrogen	0.30[a]	NNS	1.00[b]
Salt River below Stewart Mountain Dam to confluence with the Verde River			
Total phosphorus	0.05	NNS	0.20
Total nitrogen	0.60	NNS	3.00
Little Colorado River and its tributaries above River Reservoir in Greer; South Fork of Little Colorado River above South Fork Campground; Water Canyon Creek above Apache-Sitgreaves National Forest boundary			
Total phosphorus	0.08	0.10	0.75
Total nitrogen	0.60	0.75	1.10
Little Colorado River at crossing of Apache County Road No. 124			
Total phosphorus	NNS	NNS	0.75
Total nitrogen	NNS	NNS	1.80
Little Colorado River above Lyman Lake to above Amity Ditch diversion near crossing of Arizona Highway 273 (applies only when in-stream turbidity is less than 50 NTU)			
Total phosphorus	0.20	0.30	0.75
Total nitrogen	0.70	1.20	1.50

Colorado River, at Northern International Boundary near Morelos Dam			
Total phosphorus	NNS	0.33	NNS
Total nitrogen	NNS	2.50	NNS
San Pedro River, from Curtiss to Benson			
Total phosphorus	NNS	NNS	NNS
Total nitrate as N	NNS	NNS	10.0

H. The following water quality standards for radiochemicals shall not be exceeded:
1. In all navigable waters, the concentration of radiochemicals shall not exceed the limits established by the Arizona Radiation Regulatory Agency in Title 12, Chapter 1, Article 4, Appendix A, Table II, Column 2 of the Arizona Administrative Code, (effective June 30, 1977, and no future amendments), which is incorporated by reference and on file with the Office of the Secretary of State and with the Department.
2. In navigable waters that are designated as domestic water sources, the following water quality standards for radiochemicals shall not be exceeded:
   a. The concentration of gross alpha particle activity, including radium-226 but excluding radon and uranium, shall not exceed 15 picocuries per liter of water.
   b. The concentration of combined radium-226 and radium-228 shall not exceed 5 picocuries per liter of water.
   c. The concentration of strontium-90 shall not exceed 8 picocuries per liter of water.
   d. The concentration of tritium shall not exceed 20,000 picocuries per liter of water.
   e. The average annual concentration of beta particle activity and photon emitters from man-made radionuclides shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirems per year.

Footnotes:
1 Includes A&Wc, A&Ww and A&We.
2 Includes A&Wc, A&Ww, A&Wedw and A&We.
3 There is no water quality standard for temperature for the A&We designated use.
4 Does not apply to Cholla Lake.
5 Does not apply to a wastewater treatment plant discharge to a dry watercourse that creates an effluent dominated water.
6 There is no dissolved oxygen standard for the A&We designated use.
7 Or 90% saturation, whichever is less.
8 The dissolved oxygen water quality standard for a lake shall apply below the surface but not at a depth greater than 1 meter.
a means annual mean of representative composite samples taken from the surface and at 2- and 5-meter depths.
b means maximum for any set of representative composite samples taken from the surface and at 2- and 5-meter depths.
"NNS" means no numeric standard.

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-110. Salinity of the Colorado River
The flow-weighted average annual salinity in the lower main stem of the Colorado River shall be maintained at or below the following concentrations:

Location	Total Dissolved Solids
Below Hoover Dam	723 mg/L
Below Parker Dam	747 mg/L
At Imperial Dam	879 mg/L

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-111. Analytical Methods
A. Analysis of a sample taken to determine compliance with a water quality standard shall be in accordance with an approved analytical method prescribed in Title 9, Chapter 14, Article 6 of the Arizona Administrative Code or an alternative analytical method that is approved by the Director of the Department of Health Services pursuant to A.A.C. R9-14-607(B).
B. A test result from a sample taken to determine compliance with a water quality standard shall be valid only if the sample has been analyzed by a laboratory that is licensed by the Arizona Department of Health Services for the analysis performed.

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1).

R18-11-112. Unique waters
A. The classification of a navigable water as a unique water shall be by rule.
B. The Director may adopt, by rule, site-specific water quality standards to maintain and protect existing water quality in a unique water.
C. Any person may nominate a navigable water for classification as a unique water by filing a petition for rule adoption with the Department. A petition for rule adoption to classify a navigable water as a unique water shall include:
1. A map and a description of the navigable water;
2. A written statement in support of the nomination, including specific reference to the applicable criteria for unique waters classification as prescribed in subsection (D) of this Section;
3. Supporting evidence demonstrating that one or more of the applicable unique waters criteria prescribed in subsection (D) of this Section has been met; and
4. Relevant water quality data.
D. A navigable water may be classified as a unique water by the Director upon a finding that the navigable water is an outstanding state resource water based upon one of the following criteria:
1. The navigable water is of exceptional recreational or ecological significance because of its unique attributes, including, but not limited to, attributes related to the geology, flora, fauna, water quality, aesthetic values or the wilderness characteristics of the navigable water.
2. Threatened or endangered species are known to be associated with the navigable water and the existing water quality is essential to the maintenance and propagation of a threatened or endangered species or the navigable water provides critical habitat for a threatened or endangered species. Endangered or threatened species are identified on the following lists which are hereby incorporated by reference and on file with the Office of the Secretary of State and with the Department:
   a. Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12 (revised as of July 15, 1991);
   b. "Threatened Native Wildlife of Arizona," Arizona Game and Fish Department (July 21, 1988);

ARIZONA STATE PARKS

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September 22, 1994

Leslie Stafford McGaughey
Associate
Coffman Associates
11022 N. 28th Drive, Suite 240
Phoenix, Arizona 85029

RE: Williams, H.A. Clark Memorial Field Master Plan, City of Williams and FAA

Dear Leslie:

Thank you for consulting with us about the preparation of a Master Plan to identify needed features over the next 20 years at the airport in Williams. I have reviewed your submittal, checked our site files, and have the following comments:

Our records indicate that various cultural resources inventories in the vicinity have revealed the presence of archaeological sites. Thus, it is possible that significant cultural resources may be present within the airport and the proposed expansion areas.

We recommend that those areas proposed for development be surveyed by a qualified archaeologist to locate and evaluate any existing cultural remains. The survey(s) should be done prior to development, but need not be done now. When the survey report(s) is completed, a copy should be sent to this office and the Federal Aviation Administration (FAA).

Your continued good cooperation with our office in helping cities in Arizona and the FAA to comply with their historic preservation requirements is very much appreciated. If you have any questions, please contact me at 542-7137 or 542-4009.

Sincerely,

Robert E. Gasser
Compliance Coordinator
State Historic Preservation Office

United States Department of Agriculture
Soil Conservation Service

3003 N. Central Avenue
Suite 800
Phoenix, Arizona 85012-2954

Leslie Stafford McGaughey
Coffman Associates
11022 North 28th Drive
Suite 240
Phoenix, Arizona 85029

September 26, 1994

Dear Ms. McGaughey:

Mohave reviewed the Airport Master Plan and Associated Development, H.A. Clark Memorial Field, Williams Arizona.

Soils mapping for this area has been done by the U.S. Forest Service, a check with their office in Williams should reveal whether prime farmland is found at this location.

An elk and deer proof fence is recommended around the perimeter of the facility to ensure that large animals do not enter the area. This fence is a minimum of eight (8) feet tall, chain link, with additional guard wires on top, or the equivalent. It will also control livestock.

Noise pollution will increase many times and will be a very serious local consideration.

Thank you for the opportunity to comment.

Humberto Hernandez

HUMBERTO HERNANDEZ
State Conservationist

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